

CLAIMS

1. A throttle apparatus, comprising:
 - a throttle valve which is disposed at an intake passage of an engine;
 - a throttle shaft which supports said throttle valve to open and close;
 - a first drive means which includes a motor for rotational driving of said throttle shaft; and
 - a second drive means which exerts return force to said throttle shaft so as to return said throttle valve to a specific rest position.
2. The throttle apparatus according to claim 1, wherein said second drive means comprises a pulley which is fixed to said throttle shaft, a wire which is connected along the circumference direction of said pulley, and an electromagnetic solenoid which drives said wire.
3. The throttle apparatus according to claim 2, further comprising an angle detect sensor which detects angle position of said throttle valve, and a control means which controls the driving of at least said first drive means;
 - wherein said control means drives said electromagnetic solenoid based on a detect signal from said angle detect sensor and a drive signal of said first drive means.
4. The throttle apparatus according to claim 1, wherein said second drive means comprises a pulley which is fixed to said throttle shaft, a wire which is connected along the circumference direction of said pulley, and a hand-driven operating lever which drives said wire.
5. The throttle apparatus according to any one of claims 2 through 4, wherein said pulley is disposed at the vicinity to which drive force of said first drive means is exerted.